R18 Regulation *Subject code: A3E6DD*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, July 2024

TELECOMMUNICATION SWITCHING SYSTEM & NETWORKS

(ECE)

Maximum Marks: 70 Date:01.08.2024 Duration: 3 hours

Note:
1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

	Part-A	
All the following questions carry equal marks		(10x2M=20 Marks)
1	Define blocking probability.	
2	Draw the basic telecommunication switching network and list its components.	
3	What is Time Division Switching?	
4	With neat diagrams explain time switch and space switch?	
5	What do you mean by customer line signalling?	
6	Comparison between in-channel signalling and CCS.	
7	Write about data network?	
8	Write the routing plans?	
9	Write different topologies.	
10	What is functional grouping?	
	Part-B	
Answer All the following questions.		(10MX 5=50Marks)
11	A. Explain the elements of a Switching system. B. Briefly explain Functions of a telecommunication Switching system.	(5) (5)
	OR	
12	A. Explain the Queueing systems B. Write short notes on Erlang and CCS?	(5) (5)
13	Explain the principles of operation of centralized SPC and distributed SPC and compare their performance.	(10)
	OR	
14	A. Explain the three stage Combination Switching. B. Explain briefly the basic concepts of message and circuit switching.	(5) (5)
15	A. Explain Inter Register Signalling with the help of an application. B. Explain the Out band signalling.	(5) (5)
	OR	
16	Explain LAN,WAN and MAN.	(10)

17	A. Describe Datagrams and Virtual Circuits with suitable diagram and applications. B. Comparison of Bus and Ring network.	(5) (5)
	OR	
18	A. Discuss about broadband networks. B. Explain the Optical-fiber networks	(5) (5)
19	A. Briefly explain the integrated digital networks. B. Explain Network level signaling in ISDN.	(5) (5)
	OR	
20	A. What is Charging in telecommunication networks? B. Explain the Numbering scheme.	(5) (5)